

ABSTRACT

A device for the delivery of treatment material to radiopharmaceutical labeled diseased or malfunctioning candidate cells within a human body and a method for using the device. The method includes the labeling of target cells in a body with a radionuclide, the identification in situ of the candidate cells using a nuclear probe 5 sensitive to the presence of the radionuclide label and delivery of the treatment compound to the cell while the probe is at the site of the labeled cells. More particularly, the invention relates to in situ gene therapy using a beta or gamma probe to locate labeled cells, also referred to as candidate cells, and the delivery of corrective genes, cells or biological vectors to the candidate cells identified by the probe while the 10 probe is positioned adjacent to the labeled and located cells. The device is part of a system which provides a quantitative measure of the amount of radiation emanating from the labeled tissue targeted by the probe.